

3 [(a)] receiving up to a plurality of indications denoting commencement of data
4 packet [frame] transmission over the aggregated link having [on each of] a plurality of virtual
5 links each associated with a particular quality of service level [comprising the aggregated
6 link]; and
7 [(b)] assigning a plurality of pointer values to a corresponding plurality of records
8 in [an] appropriate buffers [ones] of a plurality of pointer value buffers associated with the
9 corresponding plurality of virtual links based, at least in part, on the relative order in which
10 data packets [frames] are transmitted on each of the links.

1 2. (Amended) The method of claim 1, further comprising:

2 [(c)] receiving the transmitted data packets [frames] from each of the plurality of
3 virtual links in a common receive buffer[;].

1 3. (Amended) The method of claim 2, further comprising:

2 [(d)] reading received data packets [frames] from the common receive buffer based,
3 at least in part, on the pointer value assigned in each of the pointer value buffers.

1 4. (Amended) The method of claim 3, wherein [frames] the data packets are
2 promoted from the receive buffer with priority given to pointer [value order] values in pointer
3 value buffers associated with the virtual links having higher quality of service levels.

1 5. (Amended) The method of claim 1, wherein a plurality of pointer value
2 buffers are used to store pointer values denoting the commencement of transmission of data
3 packets [frames] on a corresponding plurality of virtual links supporting a discrete quality of
4 service levels.

1 6. (Amended) The method of claim 1, wherein received data packets [frames]
2 are promoted in pointer value order with priority given to pointer value buffers associated
3 with the virtual links with higher quality of service characteristics.

1 9. (Amended) The method of claim 1, wherein the order of pointer values in
2 each of the pointer value buffers do not correspond to the order of data packet [frame]
3 transmission.

1 ~~Sub~~ 10. (Amended) An apparatus comprising:
2 ~~100~~ a receive buffer having a plurality of records in which to store frames of data received
3 from a plurality of virtual links, each virtual link associated with a particular quality of
4 service level;
5 a plurality of pointer value buffers each associated with at least one of the plurality of
6 virtual links; and
7 a network interface, coupled to the receive buffer and the pointer value buffers, to
8 assign a plurality [plurality] of pointer values to an [in] appropriate buffer [ones] of the
9 plurality of pointer value buffers in response to the commencement [commencement] of
10 transmission of packets of data [frames] on the associated virtual link.

1 14. (Amended) The apparatus of claim 10, wherein the network interface retires
2 the received data packets [frames] from the receive buffer to a system state in order of pointer
3 value in each of the plurality of pointer value buffers.

1 15. (Amended) The apparatus of claim 14, wherein the data packets [frames] are
2 retired in pointer value order for each of the plurality of pointer value buffers, with priority
3 given to pointer value buffers associated with higher quality of service virtual links.

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16. (Amended) In a data network, a method for preserving frame order of a plurality of frames transmitted across a plurality of virtual links of a multi-link trunk, [wherein] each of the virtual links is associated with a discrete quality of service, the method comprising:

(a) receiving up to a plurality of indications denoting commencement of frame transmission on each of the virtual links of the multi-link trunk; and

(b) assigning a plurality of pointer values to a plurality of records corresponding to a number of indications received from each of the virtual links in appropriate ones of a plurality of pointer value buffers associated with the plurality of virtual links based, at least in part, on a relative order in which the indications received.

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Please add new claims 21-24 as follows:

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21. (New) An apparatus comprising:

a multi-link trunk including a high-speed link and a low-speed link;

a network interface including

a first pointer value buffer associated with the high-speed link,

a second pointer value buffer associated with the low-speed link,

a receive buffer to promote packets of data in an assigned order of pointer values with priority given to pointer values in the first pointer value buffer.

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22. (New) The apparatus of claim 21, wherein the network interface further includes

a multiplexer having an output coupled to the first pointer value buffer, the second pointer value buffer and the receive buffer; and

a plurality of media access controllers coupled to inputs of the multiplexer.

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1 23. (New) The apparatus of claim 22, wherein the network interface further
2 includes a plurality of physical links each coupled to a corresponding media access controller
3 of the plurality of media access controllers.

1 24. The apparatus of claim 21, wherein the receive buffer promotes packets of
2 data associated with a pointer value of the second pointer value buffer only if all frames of
3 data associated with a pointer value of the first pointer value buffer has been promoted.
